

Antibiotic and Anti-inflammatory effect evaluation of a herbal plant (Acacia nilotica) extract in Periodontitis induced Albino rabbit

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Background: Periodontitis is a tooth disease induced by anaerobic gram negative bacteria especially by Porphyromonus gingivalis and is widely spread in the world not only affecting humans but also a number of animal species.

Misvak (Acacia nilotica) is being used by human being to protect teeth from such type of diseases for centuries but scientific data is not available to support misvak which may be used as reference.

Aim: Present study was designed to evaluate the effect of A.nilotica extract in periodontitis induced albino rabbit supposed to have antibiotic effect.

As antibiotics are going to be resistant day by day, so the discovery of new antibiotics is needed. The ingredients having antibiotic effect in this plant extract may after isolation, with some modification and clinical trials be used as antibiotic in future.

Methods: In this study 5 group of rabbits were used as A, B, C, D and E with 5 rabbits each. For induction of disease experimentally grown P.gingivalus was applied through ligature over B,C,D and E groups on Monday, Wednesday and Friday for 7 weeks while group A was receiving only ligature.

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After induction of disease, Group A was received only distilled water and used as negative control while group B was used as positive control and Group C, D and E received treatments in suitable dosage 300mg/kg, 500mg/kg of A.nilotica aqueous Extract and 15mg/kg of Amoxillin respectively.

The effect of A.nilotica Extract was evaluated by different Morphometric and hematological parameters i.e CBC, ESR, serum creatinine and Liver function tests ALT and AST before and after treatment.

Impact of Study: After giving A.nilotica extract in measured quantity, it was observed that the periodontal disease was cured to some extent after receiving mentioned dose orally for 14 consecutive days by morphological and hematological parameters.

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